

1 **Amendment to the Specification**

2 **In the Specification:**

3 Please amend the specification as follows:

4 On Page 5, the paragraph beginning at line 12 should be replaced with the following:

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6 ~~Another example of the state of the art of using singly labeled probes is described in~~  
7 ~~commonly owned U.S. Patent No. 6,249,341, entitled "Imaging and Analyzing Parameters of Small~~  
8 ~~Moving Objects Such as Cells," filed on January 24, 2000, the drawings and disclosure of which are~~  
9 ~~hereby specifically incorporated herein by reference. This patent describes generating an image of~~  
10 ~~FISH probes, each of which includes a single binding element and a single signaling element. Each~~  
11 ~~signaling element has an optical signature, such that each different labeled probe is uniquely~~  
12 ~~discriminable by the optical signature of its signaling element. FIGURE 2A is illustrative of such an~~  
13 ~~a prior art~~ embodiment that images singly-colored FISH probes. A single labeled probe bound to  
14 each of three features. Each single labeled probe includes a binding element and a single element. A  
15 first probe, made up of signaling element 410a and binding element 412a is associated with a  
16 ~~feature 414a~~ feature 414. A second probe is made up of signaling element 410b and binding  
17 element 412b and is associated with a ~~feature 414a~~ feature 416, while a third probe, made up of  
18 signaling element 410c and binding element 412c, is associated with a ~~feature 414e~~ feature 418.  
19 When an image 440 of the object is produced, the spectral signal of each signaling element is  
20 spatially separated based on the positions of the features on the object, as indicated by image  
21 portion 440a (due to signaling element 410a), image portion 440b (due to signaling element 410b),  
22 and image portion 440c (due to signaling element 410c). Each signaling agent is used to identify  
23 only a single feature. Thus there is a one to one relationship between the number of signaling  
24 elements available and the number of features that can be probed. ~~Notably, the '341 patent does not~~  
25 ~~discuss the use of multiplexed probes within cells or other objects.~~ Again, the total number of probes  
26 available to the researcher is typically on the order of the number of unique signaling elements that  
27 can be detected with a given apparatus.  
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